

FISH DISEASES AND THEIR CONTROL

Health control service in Sweden

According to its annual report for 1970, the Swedish Salmon Research Institute operates a health control service in the country through 27 fish culture stations. During the year furunculosis was diagnosed in two stations, infection from *Pasteurella* (bacteria) in one, and white spot disease in another station. As in previous years, gill diseases were the major cause of mortality in salmon under culture during late winter. Four stations reported that parasitization by *Costia* sp. resulted in a high mortality of fry during spring.

During the 1970/71 season, investigations on the possible beneficial effects of wintering fish in heated water were started in the salmon stations at Heden and Näs.

The studies initiated in 1969 on the effects of chlorinated hydrocarbons on hatchability of salmon eggs are being continued.

Diseases of cultured salmon

Methods for the prevention and treatment of diseases encountered in Atlantic salmon (Salmo salar) farming are being studied at the Unilever Research Laboratory in Aberdeen. Several traditional treatments have been tried on the freshwater stages of the fish. Since the cultivation of salmon in seawater is new, techniques for disease treatment in such environments will need to be developed.

External blisters in Clarias

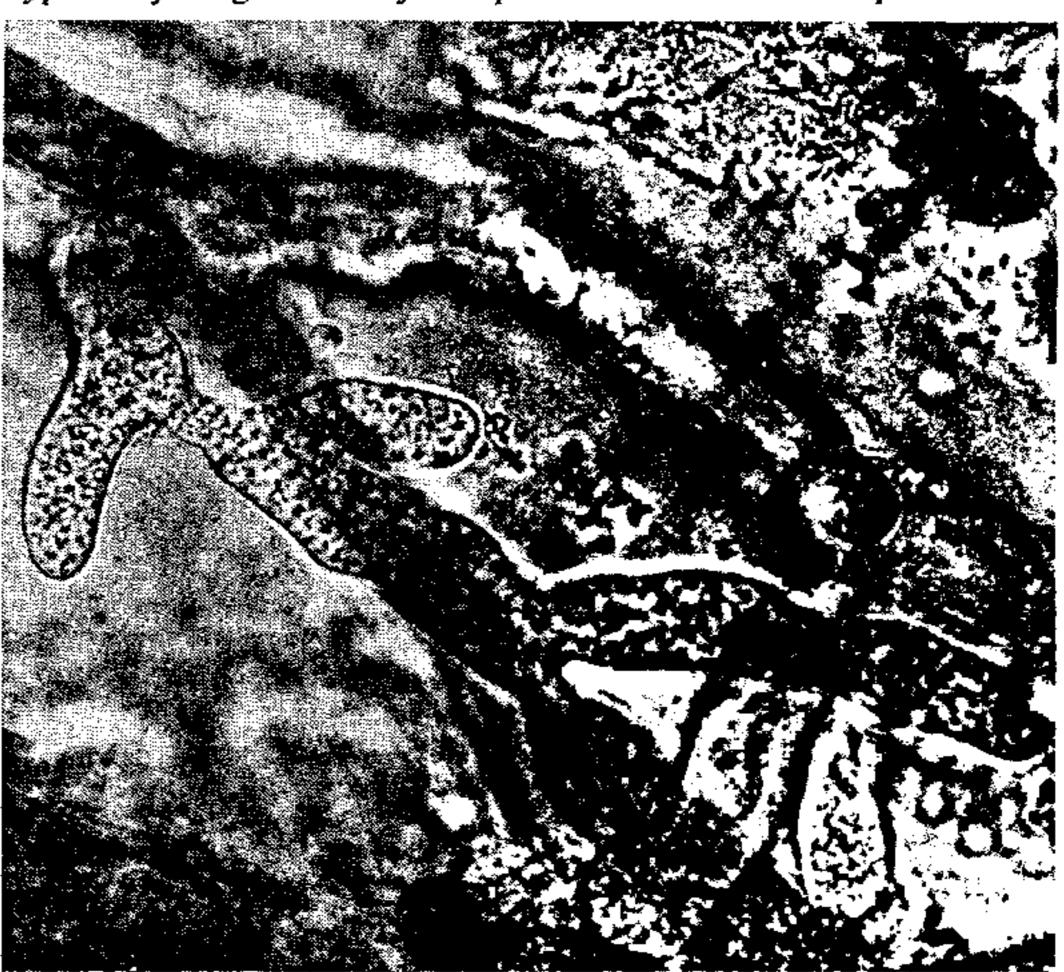
The FAO/UNDP/SF Fish Culture Training and Research project, Bangui, Central African Republic, reports the appearance of blisters on the bodies and fins of three species of Clarias (C. lazera, C. bithypogon and C. submarginatus) raised in concrete tanks on an exclusive diet of crushed cottonseed. When the water supply to the tanks was increased and brewery wastes included in the diet, the blisters disappeared in about 15 days.

Fungi parasitic on shrimp

The Dow Chemical Company's shrimp hatchery at Freeport, Texas, United States, reports that largescale mortality of shrimps is caused by the infection of various parasitic fungi.

During the summer of 1970, a fungus similar to Dermocystidium occurred in the hatchery and in the spring of 1971 another fungus, tentatively identified

Hyphae of Lagenidium from postlarval brown shrimp.



as belonging to the genus *Lagenidium*, infected a large number of shrimps. Both parasites caused extensive mortality within two to three days. There were indications that these fungi are common in wild shrimp populations.

A third unidentified species infected juvenile brown shrimp in the hatchery. The fungi appeared as black spots and proved fatal when they spread to the gill region.